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10/692,496	10/24/2003	Leonard W. Helmer JR.	POU920030106US1	1872

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EXAMINER	
BURGESS, BARBARA N	

ART UNIT	PAPER NUMBER
2157	

NOTIFICATION DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ptoboca@focusonip.com

Office Action Summary	Application No.	Applicant(s)	
	10/692,496	HELMER ET AL.	
	Examiner	Art Unit	
	BARBARA N. BURGESS	2157	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 January 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-5,7-12,14-18 and 20-22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5,7-12,14-18 and 20-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

This Office Action is in response to Amendment filed January 18, 2008. Claims 6, 13, and 19 have been cancelled as requested by Applicant. Claims 21-22 are newly added and presented for initial examination. Claims 1-5, 7-12, 14-18, 20 are presented for further examination.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-2, 4-5, 8-9, 11-12, 14-15, 17-18, 21-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goldenberg et al. (hereinafter "Golden", US Patent Publication 2004/0034718 A1) in view of Minnick et al. (hereinafter "Min", US Patent Publication 2003/0058878 A1).

As per claims 1, 8, 14, Golden discloses a method, computing node, and signal bearing medium for transferring a data message, the method comprising:

- Sending, through a communication adapter, the first data packet to the pre-defined destination (paragraphs [0010, 0013, 0019, 0045, 0049], Golden teaches writing (transferring) data (first data packet) from a received message to a specific memory location (destination);

- loading a packet descriptor associated with a second data packet into the communications adapter, wherein the loading is concurrent with the transferring and the packet descriptor identifies a second destination that is pre- defined the destination (paragraphs [0008-0010, 0017, 0019, 0045], Golden teaches placing (loading) descriptors in the network adapter's cache. The descriptors are used to identify the memory address to which data should be written. The memory address corresponds to a memory location at a computing device. The adapter transfers the message data to the system memory location. The next descriptor is prefetched (loaded). Transferring the packet and prefetching (loading) the next descriptor is done in this manner to reduce latency. Without waiting, the adapter is able to increase its rate of processing messages under conditions of heavy, bursty traffic. Once data is being transferred to the memory location, the processing is complete and the network adapter is at that point able to prefetch (load) the next descriptor. Therefore, Golden implicitly discloses loading and transferring being done concurrently);
- transferring, in dependence upon the packet descriptor, a second data element to the pre-defined destination (paragraphs [0009, 0015, 0047, 0049], Golden teaches transferring the next incoming message (second data element) according to information contained in the pre-fetched descriptor. Subsequent packets (second data element) are sent to memory locations (destination) specified by the descriptor).

Golden does not explicitly disclose:

- identifying a pre-defined destination node, the pre-defined destination node being within a plurality of remote computer nodes to which data packets are able to be sent over a data communication network;
- queuing, in an expedited transmission queue that is separate from a normal data packet queue, a first data packet that is addressed to the pre-defined destination node, wherein the normal data packet queue is used to queue data packets for transmission to other computing systems within the plurality of remote computer nodes, the other computing systems comprising a destination nodes that are not the pre-defined destination node;
- transferring data packets over the data communication network.

However, Min teaches a plurality of queues used to hold packets having queue-specific resources. Packets having a destination MAC address ending in a particular hexadecimal digit are queued in one of the plurality of queues. This is used to prevent out-of-order packets. Transmission occurs over several networks such as WAN, LAN, PSTN (paragraphs [0020, 0038-0041], Abstract).

Therefore, one of ordinary skill in the art at the time the invention was made would have found it obvious to implement or incorporate Min's identifying pre-defined destination node and queuing packets in Golden's method in order to minimize processing time.

As per claim 2, Golden discloses the method according to claim 1, wherein the transferring of the first data element and the transferring of the second data element

comprises loading the first data element and the second data element into a fast data queue, wherein the fast data queue only queues data elements for transmission to the pre-defined destination (paragraphs [0004, 0006, 0033, 0037], Figure 2, According to Applicant's specification, an exemplary fast transmission queue structure has two queues: the fast data transmission queue and the fast descriptor queue. However, alternative embodiments operate with a single queue to queue entire data packets (pages 14-15). Golden teaches queue pair (QP) (fast data queue) having a send work queue and a receive work queue. Work requests having work elements (data elements) are placed in the appropriate queue. The receive queue comprise one or more descriptors indicating the memory location to which the data is to be written).

Golden does not explicitly disclose:

- the expedited transmission queue comprises a fast data queue;
- packets transmitted over the data communication network.

However, Min teaches a plurality of queues used to hold packets having queue-specific resources. Packets having a destination MAC address ending in a particular hexadecimal digit are queued in one of the plurality of queues. This is used to prevent out-of-order packets. Transmission occurs over several networks such as WAN, LAN, PSTN (paragraphs [0020, 0038-0041], Abstract).

Therefore, one of ordinary skill in the art at the time the invention was made would have found it obvious to implement or incorporate Min's identifying pre-defined destination node and queuing packets in Golden's method in order to minimize processing time.

As per claim 4, Golden discloses the method according to claim 1, wherein the loading further comprises configuring, concurrently with the transferring of the first data element, the communications adapter for the transferring of the second data element (paragraphs [0008-0010, 0049, 0060], According to Applicant's specification, pre-fetching causes the network adapter to pre-fetch the descriptor from the fast descriptor queue to begin configuration for transmission of the next data element (page 18). Golden teaches fetching (loading) the next work item from the receive queue and writing (transferring) data to the location specified by the work item. Once these operations complete, the adapter can pre-fetch the next work item (descriptor) for the next message (element). This is configuration for transmission of the next data element. The next descriptor is prefetched (loaded). Transferring the packet and prefetching (loading) the next descriptor is done in this manner to reduce latency. Without waiting, the adapter is able to increase its rate of processing messages under conditions of heavy, bursty traffic. Once data is being transferred to the memory location, the processing is complete and the network adapter is at that point able to be configured for transferring the second element by prefetching (load) the next descriptor. Therefore, Golden implicitly discloses configuring and transferring being done concurrently).
Golden does not explicitly disclose:

- transferring packet to a pre-defined destination node over the data communication network.

However, Min teaches a plurality of queues used to hold packets having queue-specific resources. Packets having a destination MAC address ending in a particular

hexadecimal digit are queued in one of the plurality of queues. This is used to prevent out-of-order packets. Transmission occurs over several networks such as WAN, LAN, PSTN (paragraphs [0020, 0038-0041], Abstract).

Therefore, one of ordinary skill in the art at the time the invention was made would have found it obvious to implement or incorporate Min's identifying pre-defined destination node and queuing packets in Golden's method in order to minimize processing time.

As per claim 5, Golden discloses the method according to claim 1, wherein the expedited transmission queue comprises a fast data queue and a fast descriptor queue, and wherein the loading comprises loading the packet descriptor into a fast descriptor queue for subsequent transfer to the communications adapter and wherein the method further comprises loading the second data packet that is associated with the packet descriptor into the fast queue (paragraphs [0008, 0012, 0016], Golden teaches the computing device placing (loading) descriptors into multiple queues such as receive queues (fast descriptor queue). The network adapter fetches or pre-fetches the descriptors from the computing system's queue (fast descriptor queue).

As per claim 9, Golden discloses the computing node according to claim 8, further comprising a fast data queue for queuing data elements for transmission to the pre-defined destination (paragraphs [0004, 0006, 0033, 0037], Figure 2, According to Applicant's specification, an exemplary fast transmission queue structure has two

queues: the fast data transmission queue and the fast descriptor queue. However, alternative embodiments operate with a single queue to queue entire data packets (pages 14-15). Golden teaches queue pair (QP) (fast data queue) having a send work queue and a receive work queue. Work requests having work elements (data elements) are placed in the appropriate queue. The receive queue comprise one or more descriptors indicating the memory location to which the data is to be written).

Golden does not explicitly disclose:

- wherein the fast data element transmitter is further adapted to send the first data packet and transfer the second data packet by loading the first data packet and the second data packet into the fast queue, wherein the fast data queue only queues data packets for transmission to the pre-defined destination node over the data communication network.

However, Min teaches a plurality of queues used to hold packets having queue-specific resources. Packets having a destination MAC address ending in a particular hexadecimal digit are queued in one of the plurality of queues. This is used to prevent out-of-order packets. Transmission occurs over several networks such as WAN, LAN, PSTN (paragraphs [0020, 0038-0041], Abstract).

Therefore, one of ordinary skill in the art at the time the invention was made would have found it obvious to implement or incorporate Min's identifying pre-defined destination node and queuing packets in Golden's method in order to minimize processing time.

As per claim 11, Golden discloses the computing node according to claim 8, wherein the pre-defined destination is associated with a neighboring computer node (paragraphs [0003, 0006, 0008-0009], Golden teaches writing data to a destination computing device (computer node) (also called a host). This device is coupled to (neighboring) the network adapter).

As per claim 12, Golden discloses the computing node according to claim 8, further comprising a fast descriptor queue for queuing the packet descriptor for subsequent transfer to the fast descriptor interface, wherein the fast descriptor interface loads the packet descriptor into the fast descriptor queue for subsequent transfer to the communication adapter and wherein the fast data element transmitter loads the second data packet that is associated with the packet descriptor into the fast data queue (paragraphs [0008, 0012, 0016], Golden teaches the computing device placing (loading) descriptors into multiple queues such as receive queues (fast descriptor queue). The network adapter fetches or pre-fetches the descriptors from the computing system's queue (fast descriptor queue).

As per claim 15, Golden discloses the signal bearing medium of claim 14, wherein the expedited transmission queue comprises a fast data queue and sending of the first data packet and the transferring of the second data element comprises loading the first data packet and the second data element into a fast data queue, wherein the fast data queue only queues data elements for transmission to the pre-defined destination (paragraphs

[0004, 0006, 0033, 0037], Figure 2, According to Applicant's specification, an exemplary fast transmission queue structure has two queues: the fast data transmission queue and the fast descriptor queue. However, alternative embodiments operate with a single queue to queue entire data packets (pages 14-15). Golden teaches queue pair (QP) (fast data queue) having a send work queue and a receive work queue. Work requests having work elements (data elements) are placed in the appropriate queue. The receive queue comprise one or more descriptors indicating the memory location to which the data is to be written).

Golden does not explicitly disclose:

- transmission to the pre-defined destination node over a communication network.

However, Min teaches a plurality of queues used to hold packets having queue-specific resources. Packets having a destination MAC address ending in a particular hexadecimal digit are queued in one of the plurality of queues. This is used to prevent out-of-order packets. Transmission occurs over several networks such as WAN, LAN, PSTN (paragraphs [0020, 0038-0041], Abstract).

Therefore, one of ordinary skill in the art at the time the invention was made would have found it obvious to implement or incorporate Min's identifying pre-defined destination node and queuing packets in Golden's method in order to minimize processing time.

As per claim 17, Golden discloses the signal bearing medium of claim 14, wherein the loading further comprises configuring, concurrently with the transferring of the first data

element, the communications adapter for the transferring of the second data element (paragraphs [0008- 0049], According to Applicant's specification, pre-fetching causes the network adapter to pre-fetch the descriptor from the fast descriptor queue to begin configuration for transmission of the next data element (page 18). Golden teaches fetching (loading) the next work item from the receive queue and writing (transferring) data to the location specified by the work item. Once these operations complete, the adapter can pre-fetch the next work item (descriptor) for the next message (element) that is received. This is configuration for transmission of the next data element. The next descriptor is prefetched (loaded). Transferring the packet and prefetching (loading) the next descriptor is done in this manner to reduce latency. Without waiting, the adapter is able to increase its rate of processing messages under conditions of heavy, bursty traffic. Once data is being transferred to the memory location, the processing is complete and the network adapter is at that point able to be configured for transferring the second element by prefetching (load) the next descriptor. Therefore, Golden implicitly discloses configuring and transferring being done concurrently).
Golden does not explicitly disclose:

- transmission to the pre-defined destination node over a communication network.

However, Min teaches a plurality of queues used to hold packets having queue-specific resources. Packets having a destination MAC address ending in a particular hexadecimal digit are queued in one of the plurality of queues. This is used to prevent out-of-order packets. Transmission occurs over several networks such as WAN, LAN, PSTN (paragraphs [0020, 0038-0041], Abstract).

Therefore, one of ordinary skill in the art at the time the invention was made would have found it obvious to implement or incorporate Min's identifying pre-defined destination node and queuing packets in Golden's method in order to minimize processing time.

As per claim 18, Golden discloses the signal bearing medium of claim 14, wherein expedited transmission queue comprises a fast data queue and a fast descriptor queue and wherein loading comprises loading the packet descriptor into a fast descriptor queue for subsequent transfer to the communications adapter and wherein the method further comprises loading the second data packet that is associated with the packet descriptor into the fast data queue (paragraphs [0008, 0012, 0016], Golden teaches the computing device placing (loading) descriptors into multiple queues such as receive queues (fast descriptor queue). The network adapter fetches or pre-fetches the descriptors from the computing system's queue (fast descriptor queue).

As per claim 21, Golden discloses the method of claim 1, where in the loading is performed prior to receiving a command to transfer data contained in the second data packet to the pre-defined destination (paragraphs [0008- 0049], According to Applicant's specification, pre-fetching causes the network adapter to pre-fetch the descriptor from the fast descriptor queue to begin configuration for transmission of the next data element (page 18). Golden teaches fetching (loading) the next work item from the receive queue and writing (transferring) data to the location specified by the work item. Once these operations complete, the adapter can pre-fetch the next work item

(descriptor) for the next message (element) that is received. This is configuration for transmission of the next data element. The next descriptor is prefetched (loaded). Transferring the packet and prefetching (loading) the next descriptor is done in this manner to reduce latency. Without waiting, the adapter is able to increase its rate of processing messages under conditions of heavy, bursty traffic. Once data is being transferred to the memory location, the processing is complete and the network adapter is at that point able to be configured for transferring the second element by prefetching (load) the next descriptor. Therefore, Golden implicitly discloses configuring and transferring being done concurrently).

As per claim 22, Golden does not explicitly discloses the method of claim 1, wherein the pre-defined destination is one of an adaptive nearest neighbor node within a cluster. However, Min teaches a plurality of queues used to hold packets having queue-specific resources. Packets having a destination MAC address ending in a particular hexadecimal digit are queued in one of the plurality of queues. This is used to prevent out-of-order packets. Transmission occurs over several networks such as WAN, LAN, PSTN (paragraphs [0020, 0038-0041], Abstract).

Therefore, one of ordinary skill in the art at the time the invention was made would have found it obvious to implement or incorporate Min's identifying pre-defined destination node and queuing packets in Golden's method in order to minimize processing time.

3. Claims 3, 7, 10, 16, 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goldenberg et al. (hereinafter "Golden", US Patent Publication 2004/0034718 A1) in view of Minnick et al. (hereinafter "Min", US Patent Publication 2003/0058878 A1) and in view of Snyder et al. (hereinafter "Snyder", US Patent 5,522,039).

As per claim 3, Golden, in view of Min, discloses the method according to claim 1. Golden, in view of Min, does not explicitly disclose wherein at least one of the first data element and the second data element each comprise a user data portion that is equal to the size of a cache buffer.

However, in an analogous art, Snyder teaches transferring actual network data to or from the network. The data packet contains a header portion (first element) of data and a user data portion (second element). The data passes from the system to an FDDI buffer or is loaded into an FDDI FIFO memory (cache buffer). The FIFO is a twenty-two word memory. Twenty-two words of data are loaded quickly into FIFO (cache buffer). The network adapter performs a checksum of the data being transferred (column 5, lines 22-34, 62-65, column 6, lines 7-10).

Therefore, one of ordinary skill in the art at the time the invention was made would have found it obvious to implement or incorporate Snyder's at least one of the first data element and the second data element each comprise a user data portion that is equal to the size of a cache buffer in Golden's method enabling the data to be channeled through the network at a desired speed without slowing down the system bus

to execute additional transactions (Snyder, column 5, lines 35-37, 52-54).

As per claim 7, Golden, in view of Min, discloses the method according to claim 5. Golden, in view of Min, does not explicitly disclose further comprising altering the packet descriptor while the packet descriptor is in the fast descriptor queue and reloading the packet descriptor into the communications adapter prior to transferring the second data element.

However, in an analogous art, Snyder teaches the processor giving the byte count and destination address (packet descriptor) of a first portion of a packet to the network adapter and control chip. The control chip stores this information in one of its two pairs of address and byte count registers (fast descriptor queue). The byte count (packet descriptor) may be adjusted (altered) to take advantage of bimodal distribution. This means that the number of packets to be transferred will vary and an optimum value will be selected based on characteristics of the computing device and the network. The control chip uses (reloads) the byte count (packet descriptor) to perform a checksum and direct the transfer of both the first and remaining portion of the data packet (column 6, lines 16-25, 31-33, 37-47, 54-61, column 7, lines 49-55, column 8, lines 13-19).

Therefore, one of ordinary skill in the art at the time the invention was made would have found it obvious to implement or incorporate Snyder's altering the packet descriptor while the packet descriptor is in the fast descriptor queue and reloading the packet descriptor into the communications adapter prior to transferring the second data element in Golden's method in order to take advantage of the bimodal distribution

wherein selection of an optimum value of byte count for data transfer is performed (Snyder, column 6, lines 39-40, 46-48).

As per claim 10, Golden, in view of Min, discloses the computing node according to claim 8.

Golden, in view of Min, does not explicitly disclose wherein at least one of the first data element and the second data element each comprise a user data portion that is equal to the size of a cache buffer.

However, in an analogous art, Snyder teaches transferring actual network data to or from the network. The data packet contains a header portion (first element) of data and a user data portion (second element). The data passes from the system to an FDDI buffer or is loaded into an FDDI FIFO memory (cache buffer). The FIFO is a twenty-two word memory. Twenty-two words of data are loaded quickly into FIFO (cache buffer). The network adapter performs a checksum of the data being transferred (column 5, lines 22-34, 62-65, column 6, lines 7-10).

Therefore, one of ordinary skill in the art at the time the invention was made would have found it obvious to implement or incorporate Snyder's at least one of the first data element and the second data element each comprise a user data portion that is equal to the size of a cache buffer in Golden's computing node enabling the data to be channeled through the network at a desired speed without slowing down the system bus to execute additional transactions (Snyder, column 5, lines 35-37, 52-54).

As per claim 16, Golden, in view of Min, discloses the signal bearing medium of claim 14.

Golden, in view of Min, does not explicitly disclose wherein each of at least one of the first data element and the second data element comprises a user data portion that is equal to the size of a cache buffer.

However, in an analogous art, Snyder teaches transferring actual network data to or from the network. The data packet contains a header portion (first element) of data and a user data portion (second element). The data passes from the system to an FDDI buffer or is loaded into an FDDI FIFO memory (cache buffer). The FIFO is a twenty-two word memory. Twenty-two words of data are loaded quickly into FIFO (cache buffer). The network adapter performs a checksum of the data being transferred (column 5, lines 22-34, 62-65, column 6, lines 7-10).

Therefore, one of ordinary skill in the art at the time the invention was made would have found it obvious to implement or incorporate Snyder's at least one of the first data element and the second data element each comprise a user data portion that is equal to the size of a cache buffer in Golden's medium enabling the data to be channeled through the network at a desired speed without slowing down the system bus to execute additional transactions (Snyder, column 5, lines 35-37, 52-54).

As per claim 20, Golden, in view of Min, discloses the signal bearing medium of claim 18.

Golden, in view of Min,does not explicitly disclose wherein the operations further comprise altering the packet descriptor while the packet descriptor is in the fast descriptor queue and reloading the packet descriptor into the communications adapter prior to transferring the second data element.

However, in an analogous art, Snyder teaches the processor giving the byte count and destination address (packet descriptor) of a first portion of a packet to the network adapter and control chip. The control chip stores this information in one of its two pairs of address and byte count registers (fast descriptor queue). The byte count (packet descriptor) may be adjusted (altered) to take advantage of bimodal distribution. This means that the number of packets to be transferred will vary and an optimum value will be selected based on characteristics of the computing device and the network. The control chip uses (reloads) the byte count (packet descriptor) to perform a checksum and direct the transfer of both the first and remaining portion of the data packet (column 6, lines 16-25, 31-33, 37-47, 54-61, column 7, lines 49-55, column 8, lines 13-19).

Therefore, one of ordinary skill in the art at the time the invention was made would have found it obvious to implement or incorporate Snyder's altering the packet descriptor while the packet descriptor is in the fast descriptor queue and reloading the packet descriptor into the communications adapter prior to transferring the second data element in Golden's medium in order to take advantage of the bimodal distribution wherein selection of an optimum value of byte count for data transfer is performed (Snyder, column 6, lines 39-40, 46-48).

Response to Arguments

4. Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BARBARA N. BURGESS whose telephone number is (571)272-3996. The examiner can normally be reached on M-F (8:00am-4:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on (571) 272-4001. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Barbara N Burgess/
Examiner, Art Unit 2157

Barbara N Burgess
Examiner
Art Unit 2157

April 11, 2008

/Ario Etienne/

Supervisory Patent Examiner, Art Unit 2157